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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/685,052	10/06/2000	Brian Wesley Damon	LE9-99-149	3140
21972	7590	02/07/2005	EXAMINER	
LEXMARK INTERNATIONAL, INC. INTELLECTUAL PROPERTY LAW DEPARTMENT 740 WEST NEW CIRCLE ROAD BLDG. 082-1 LEXINGTON, KY 40550-0999			THOMPSON, JAMES A	
			ART UNIT	PAPER NUMBER
			2624	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

09/685,052

Applicant(s)

DAMON ET AL.

Examiner

James A Thompson

Art Unit

2624

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 24 January 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The reply was filed after the date of filing a Notice of Appeal, but prior to the date of filing an appeal brief. The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1-16.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____.
13. ☐ Other: _____.

Response to Arguments

Applicant's arguments filed 24 January 2005 have been fully considered but they are not persuasive.

Regarding page 2, line 1 to page 3, line 4: Yoshida (US Patent 5,719,680) clearly and unambiguously teaches color halftoning. This is evidenced by several factors:

(1) The apparatus of Yoshida includes image data memory (figure 1(5) of Yoshida) which stores image data that is to be reproduced by image forming elements (figure 1(3) of Yoshida) which are controlled by driving elements (figure 1(2) of Yoshida), wherein said image forming elements and said driving elements are part of the print head (figure 1(1) of Yoshida) (column 2, lines 17-22 of Yoshida).

(2) Yoshida does not, as Applicant contends, merely print solid colors. The "solid colors" are the colors printed as dots by the cyan, magenta, yellow and black print heads in order to produce an image (column 1, lines 30-34 of Yoshida). Yoshida clearly states "It is accordingly an object of the present invention to improve color registration in a color printer. The invented color printer has a plurality of printing heads for generating images in different colors, which are printed in a superimposed fashion on a printing medium. Each image is generated one line at a time, each line consisting of at least two parts." Correcting color registration is purely an aspect of halftone image artifact correction since color registration correction is the correction of the precise distances of each of the primary color dots, such as cyan, magenta, yellow and black, used to form a color image. Further, as the quoted passage clearly states, the plurality of printing heads are for *generating images in different colors*, which are printed in a

Art Unit: 2624

superimposed fashion on a printing medium. This is clearly halftoning of color images.

(3) Figure 5 of Yoshida does not, as Applicant contends, show a solid pattern. If one simply observes figure 5 of Yoshida, one can clearly see that white circles are not present at each dot position. Further, figure 5 of Yoshida is used illustratively to show the how the magenta dots are skew corrected with respect to the yellow dots (column 2, line 64 to column 3, line 7 of Yoshida). Figure 5 of Yoshida is not meant to exhaustively demonstrate all possible operations of the invention of Yoshida.

(4) As is abundantly well-known to those of ordinary skill in the art, color halftoning is performed by printing solid color dots, in this case the commonly used primary colors cyan, magenta, yellow and black, in a specifically superimposed manner to form a color image. As discussed above, this is clearly the function of the invention of Yoshida. The "solid colors" that Applicant alleges are, in fact, merely the individual cyan, magenta, yellow and black dots that are used in the overall formation of the image. These solid color dots are the individual dots that are used in halftoning operations to form the overall color image (column 1, lines 32-34 of Yoshida).

(5) "A patent need not teach, and preferably omits, what is well known in the art. *In re Buchner*, 929 F.2d 660, 661, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991); *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384, 231 USPQ 81, 94 (Fed. Cir. 1986), cert. denied, 480 U.S. 947 (1987); and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1463, 221 USPQ 481, 489 (Fed. Cir. 1984)." (see MPEP §2164.01) Applicant admits that "[h]alftoning is well

Art Unit: 2624

established" (page 2, lines 17-18 of Applicant's arguments), which is true. Further, though Yoshida may not specifically use the word "halftoning" in the disclosure, for the above reasons, among others, it would be abundantly clear to one of ordinary skill in the art that the invention of Yoshida does, in fact, teach color halftoning.

Regarding page 3, lines 5-24: In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "preserve individual characters"; "preserve text ... during skew correction") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claims 2, 5 and 15 recite "associating said vertical centerline of said each of said text characters with a respective one of said plurality of blocks; and shifting an entirety of said each of said text characters by a skew correction factor associated with said respective one of said plurality of blocks." It is not required that the text be specifically preserved during the skew correction. The text simply has to be shifted based on the determined skew correction factor.

As clearly shown on page 10 of the final rejection, dated 15 November 2004, Cullen (US Patent 5,854,854) has not been specifically relied upon to teach "locating the center of a text character", which Examiner understands to correspond to the limitation "identifying a vertical centerline of each of said text characters", as specifically recited in claims 2, 5 and 15.

Art Unit: 2624

In fact, Examiner specifically states on page 10, lines 25-27 of said final rejection that "Cullen does not disclose expressly using a vertical centerline instead of a rectangle for the steps of identifying and associating." Examiner relies on what is old and well-known in the art to teach using a vertical centerline of the text characters, as specifically discussed on page 10, line 27 to page 11, line 3 of said final rejection.

Regarding page 4, lines 1-13: As stated above, Yoshida does in fact teach halftoning. Yoshida clearly teaches the halftone printing of color image data. The "solid color data" that Applicant refers to is merely the individual cyan, magenta, yellow and black dots that are used to form a color halftone image, as is abundantly well-known and established in the art. There is nothing in Yoshida that limits the input image data to solid colors. Any reasonable reading of "image data" in Yoshida relates to a color image with various possible shades and tones. Further, even *arguendo* if the input image data was simply a solid color, the print heads taught by Yoshida print using individual dots. This, by definition, is halftoning, even in the case of solid color input image data. The print heads taught by Yoshida do not use brushes, sponges, pens, or other such devices. The print heads print individual dots to form an image, which is the definition of halftoning as well understood in the art. Applicant's contention that solid colors are printed is clearly a mischaracterization. As stated above, the "solid colors" are the colors printed as dots by the cyan, magenta, yellow and black print heads in order to produce an image (column 1, lines 30-34 of Yoshida), which is a common and well-known primary color set (CMYK) for the printing of halftone color images.

Art Unit: 2624

Regarding page 4, line 14 to page 5, line 18: As discussed on page 16, lines 26-28 of said final rejection, column 14, lines 51-57 of Cullen teach the rotation of each of the extracted rectangles based on the skew correction angles calculated for each extracted rectangle. Cullen does not limit the extracted rectangles such that said extracted rectangles completely enclose characters. The deskewing operations are based on the rectangles, and not specifically the characters. As discussed on page 16, line 28 to page 17, line 4, if a text character is partly in one rectangle and partly in another, then the skew correction will cause one portion of the character to be skew corrected based on one skew correction angle and the other portion of the character to be skew corrected based on another skew correction angle.

Saund (US Patent 5,835,241) teaches displaying image data in a de-warped image space by interpolating said image data (column 13, lines 31-34 and lines 48-54 of Saund). The text character in Cullen that is skew corrected with two different skew correction rectangles is a warped text character and thus in its own warped image space. By applying the image data interpolation taught by Saund to the warped text character taught by Cullen, said text character is de-warped. Therefore, a minority portion, specifically the portion of the text character that bridges the two extracted rectangles and is thus interpolated, is shifted by an amount corresponding to a difference between the skew correction factors of the two extracted rectangles.

Art Unit: 2624

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A Thompson whose telephone number is 703-305-6329. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson
Examiner
Art Unit 2624

JAT
02 February 2005



THOMAS D.
~~LEE~~ LEE
PRIMARY EXAMINER